

LISTING OF CLAIMS

1. (Currently Amended) A support ~~Support (7)~~ for an acoustic resonator (4),
~~characterized in that it comprises~~ comprising:

at least one bilayer assembly comprising:

a layer ~~(11)~~ of high acoustic impedance material; and

a layer ~~(12)~~ of low acoustic impedance material made of a low electrical
permittivity material.

2. (Currently Amended) The support ~~Support~~ according to Claim 1, ~~characterized in~~
~~that wherein~~ the electrical permittivity of the low acoustic impedance material is less than about
4, ~~preferably less than 3.~~

3. (Currently Amended) The support ~~Support~~ according to Claim 2, ~~characterized in~~
~~that wherein~~ the relative electrical permittivity of the low acoustic impedance material is less
than about 2.5.

4. (Currently Amended) The support ~~Support~~ according to claim 1 ~~any one of the~~
~~preceding claims, characterized in that wherein~~ the low acoustic impedance material comprises
SiOC.

5. (Currently Amended) The support ~~Support~~ according to Claim 4, ~~characterized in that wherein~~ the low acoustic impedance material comprises porous SiOC.

6. (Currently Amended) The support ~~Support~~ according to claim 1 ~~any one of the preceding claims, characterized in that wherein~~ it comprises no more than one or two bilayer assemblies.

7. (Currently Amended) The support ~~Support~~ according to claim 1 ~~any one of the preceding claims, characterized in that wherein~~ the high acoustic impedance material comprises at least one material selected from the group consisting of ~~of the following species~~: aluminium nitride, copper, nickel, tungsten, gold, platinum, molybdenum.

8. (Currently Amended) The support ~~Support~~ according to claim 1 ~~any one of the preceding claims, characterized in that wherein~~ the layer of high acoustic impedance material has a thickness of between 0.3 and 3.2 μm .

9. (Currently Amended) The support ~~Support~~ according to claim 1 ~~any one of the preceding claims, characterized in that wherein~~ the layer of low acoustic impedance material has a thickness of less than 0.7 μm , preferably between 0.3 and 0.7 μm .

10. (Currently Amended) An acoustic ~~Acoustic~~ resonator (4) comprising:
an active element (6) and
a support (7), ~~characterized in that the support (7) comprises~~ having at least one bilayer assembly comprising:
a layer (11) of high acoustic impedance material and
a layer (12) of low acoustic impedance material made of a low electrical permittivity material.

11. (Currently Amended) The resonator ~~Resonator~~ according to Claim 10, ~~characterized in that~~ wherein the active element (6) comprises at least one piezoelectric layer (9) placed between electrodes (8, 10).

12. (Currently Amended) An integrated ~~Integrated~~ circuit (1) comprising:
a substrate (2),
a set of interconnects, and
an acoustic resonator (4) that is provided with an active element (6) and with a support (7), ~~characterized in that the support (7) comprises~~ including at least one bilayer assembly comprising a layer (11) of high acoustic impedance material and a layer (12) of low acoustic impedance material made of a low electrical permittivity material.
13. (Currently Amended) The circuit ~~Circuit~~ according to Claim 12, ~~characterized in that~~ wherein the acoustic resonator (4) is placed on the set of interconnects (3).
14. (Currently Amended) The circuit ~~Circuit~~ according to Claim 12, ~~characterized in that~~ wherein the acoustic resonator (4) is placed near the set of interconnects (3).
15. (Currently Amended) The circuit ~~Circuit~~ according to ~~any one of Claims~~ Claim 12 to 14, ~~characterized in that~~ wherein a layer of low acoustic impedance material is placed at the same level as an interconnect layer.
16. (New) The support according to Claim 1, wherein the electrical permittivity of the low-acoustic-impedance material is less than about 3.

17. (New) The resonator according to Claim 10, wherein the electrical permittivity of the low-acoustic-impedance material is less than about 4.

18. (New) The resonator according to Claim 10, wherein the low-acoustic-impedance material comprises a SiOC material.

19. (New) The resonator according to Claim 10, wherein the high-acoustic-impedance material comprises at least one material selected the group consisting of: aluminium nitride, copper, nickel, tungsten, gold, platinum, molybdenum.

20. (New) The resonator according to Claim 10, wherein the layer of high-acoustic-impedance material has a thickness of between 0.3 and 3.2 μm .

21. (New) The resonator according to Claim 10, wherein the layer of low-acoustic-impedance material has a thickness of between 0.3 and 0.7 μm .

22. (New) The resonator according to Claim 10, wherein the support comprises no more than two bilayer assemblies.

23. (New) The circuit according to Claim 12, wherein the electrical permittivity of the low-acoustic-impedance material is less than about 4.

24. (New) The circuit according to Claim 12, wherein the low-acoustic-impedance material comprises a SiOC material.

25. (New) The circuit according to Claim 12, wherein the high-acoustic-impedance material comprises at least one material selected the group consisting of: aluminum nitride, copper, nickel, tungsten, gold, platinum, molybdenum.

26. (New) The circuit according to Claim 12, wherein the layer of high-acoustic-impedance material has a thickness of between 0.3 and 3.2 μm .

27. (New) The circuit according to Claim 12, wherein the layer of low-acoustic-impedance material has a thickness of between 0.3 and 0.7 μm .

28. (New) The circuit according to Claim 12, wherein the support includes no more than two bilayer assemblies.